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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,485	10/23/2002	Jack L. Marion	HDR01	7325
32635	7590	08/04/2005	EXAMINER	
MOUNTAIN ENGINEERING II, INC. 1233 SHERMAN DR. LONGMONT, CO 80501			WATKO, JULIE ANNE	
			ART UNIT	PAPER NUMBER
			2653	

DATE MAILED: 08/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/065,485

Applicant(s)

MARION ET AL.

Examiner

Julie Anne Watko

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 8-11 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 2 is/are allowed.
- 6) ☒ Claim(s) 12-14 is/are rejected.
- 7) ☒ Claim(s) 3-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07/01/2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings were received on July 1, 2005. These drawings are unacceptable. The dark shading in Fig. 2 renders some reference numerals unreadable. Furthermore, Fig. 4 contains solid black shading.
2. In order to avoid abandonment, the drawing informalities noted in the paper mailed on March 29, 2005, must now be corrected. Correction can only be effected in the manner set forth in the above noted paper.

Claim Objections

3. Claims 3-7 and 14 are objected to because of the following informalities:

Claims 3-7 recite the limitation "A recording system of claim 1" or "A recording system of claim 3" in line 1. The Examiner suggests -- A tape recording device [system] of claim 1 -- or -- A tape recording device [system] of claim 3 -- for consistency with claim 1, line 1.

Claim 14 lacks a period at the end of the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claim 12 is rejected under 35 U.S.C. 102(e) as being anticipated by Saliba (US Pat. No. 6369982 B2).

As recited in claim 12, Saliba shows a tape recording device, comprising: a supply reel 104 and a take-up reel 108, a head assembly 144 for recording data to the tape or reading data

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from the tape or both, a servo system capable of moving the tape from the supply reel to the take-up reel past said head (“servo controller 230 also supervises a tape reel motors servo loop 240 which controls operation of a supply reel motor 242 and a take-up reel motor 244 in order to establish desired tape velocity and maintain desired tape tension during tape travel operations”, see col. 8, lines 60-64); whereas the length of the head assembly surface that is in contact with the tape surface is substantially less than the width of the tape (see arguments below).

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saliba (US Pat. No. 6369982 B2).

Saliba shows a tape recording device as described above for claim 12.

As recited in claims 13 and 14, Saliba is silent regarding the specific relative dimensions claimed.

Official notice is taken of the fact that it is notoriously old and well known in the magnetic head art to routinely modify a magnetic head structure in the course of routine optimization/ experimentation and thereby obtain various optimized relationships including those set forth in claims 13-14.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have had the magnetic head of Saliba satisfy the relationships set forth in claims 13-14. The rationale is as follows: one of ordinary skill in the art would have been motivated to have had the magnetic head of Saliba satisfy the relationships set forth in claims 13-

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14 in the course of routine optimization /experimentation in order to minimize contact so as to reduce wear and increase life as taught by Saliba (see col. 4, lines 8-14).

Moreover, absent a showing of criticality (i.e., unobvious or unexpected results), the relationships set forth in claims 13-14 are considered to be within the level of ordinary skill in the art.

Additionally, the law is replete with cases in which when the mere difference between the claimed invention and the prior art is some range, variable or other dimensional limitation within the claims, patentability cannot be found.

It furthermore has been held in such a situation, the Applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range. *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Moreover, the instant disclosure does not set forth evidence ascribing unexpected results due to the claimed dimensions. See *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338 (Fed. Cir. 1984), which held that the dimensional limitations failed to point out a feature which performed and operated any differently from the prior art.

Allowable Subject Matter

8. Claims 1-7 are allowed.

9. The following is a statement of reasons for the indication of allowable subject matter:

See Applicant's arguments filed July 1, 2005, which are persuasive.

Although Saliba teaches that "a bias spring (not shown) preferably applies an axial bias force to the shaft 150 to urge it axially toward the tape confronting position" (see col. 7, lines 34-

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37), the reference is silent regarding a flexure having a first end attached to a head and a second end attached to an actuator, whereas the flexure allows the head to move towards the tape, and whereas the flexure is biased against the tape and therefore urges the head towards the tape, and whereas the flexure allows the head to move so that the head surface is substantially aligned with the tape surface.

Response to Arguments

10. Applicant's arguments filed June 15, 2005, have been fully considered. Although Applicant's arguments are persuasive with respect to independent claim 1, Applicant's arguments with respect to claims 12-14 are not persuasive.

On page 9, 2nd paragraph, Applicant argues that "A reduction of less than 20% is far below the optimal amount shown in the current application." It is noted by the Examiner that, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. This is consistent with Applicant's statement in ¶ 0076, that "No limitation with respect to the specific embodiments disclosed herein is intended or should be inferred." Additionally, Applicant's specification is silent regarding the scale of the drawings, such that the relative sizes shown in the figures do not serve as a guide to limit the meaning of the dimensional terms in the claims.

Claim 12 recites "the length of the head assembly surface that is in contact with the tape surface is **substantially less than** the width of the tape" in the last 3 lines (emphasis added). The Examiner asserts that the differences between the dimensions of the tape of Saliba and the head of Saliba are substantial. Applicant has failed to provide any basis by which a person of ordinary skill in the art would understand the difference between Saliba's head and Saliba's tape to be

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non-substantial. Furthermore, Saliba teaches that the disclosed head “may also be utilized in conjunction with, for example, other tape drives employing **different standard tape sizes and formats**. Also, the head assembly may include write elements” (see col. 10, lines 25-29, emphasis added). If the tape size were changed (for example, increased), then the difference between the head size and the tape size would also change.

On page 9, 2nd paragraph, Applicant argues that “Saliba fails to recognize the importance of limiting the size of surface contact between the head and the tape, remaining silent about this important issue.” The Examiner has considered this argument thoroughly and asserts that a prior art reference need not recognize the particular advantages documented by Applicant in order to anticipate Applicant’s claim. As a courtesy to Applicant, however, the Examiner notes that Saliba discusses this particular advantage in col. 4, lines 8-14 (“dimensions less than tape width such that the tape head floats in close proximity to a tape with minimized contact, ensuring effective operation with both longitudinal and azimuthal recording patterns as well as minimal wear and reliable long useful life”), and discusses the advantage again in col. 10, lines 17-21 (“minimized contact, ensuring minimal wear and reliable long useful life ... a dimension less than the tape width without need for outriggers or other structure extending the major dimension of the head to be in excess of the tape width and aids realization of a truly compact secondary module”).

At the time of Applicant’s disclosure, it was known in the art to reduce a size of a tape head. See, e.g., Biskeborn et al (US Pat. No. 5883770), especially Fig. 12. A further reduction in Saliba’s head size would have been obvious in the course of routine experimentation and optimization. Furthermore, Applicant has failed to reveal any unexpected results due to the

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ranges and relative dimensions recited in claims 13 and 14; thus, the ranges and relative dimensions are not critical.

Applicant has failed to point out any claimed feature to overcome the rejections of claims 12-14; thus, the rejections are maintained.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Anne Watko whose telephone number is (571) 272-7597. The examiner can normally be reached on Tue & Thu until 5, Wed until 3:30, Mon & Fri late.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Julie Anne Watko
Primary Examiner
Art Unit 2653

August 2, 2005
JAW

A handwritten signature in black ink, appearing to read 'Julie Anne Watko', with a stylized, cursive script.